

April, 1997

Vol 5 #04

THIS MEETING

Date: Thursday - April 24, 1997
 Time: 7:30 PM
 Program: Severe Weather by Skip Voros - WD9HAS
 Place: Redemption Lutheran Church
 Fellowship Hall
 4057 N. Mayfair Rd. (Use the south entrance)

Handicapped accessible.

Please ! DON'T call the Church for information!!!

Next Meeting: Thursday -May 30, 1997.

HamateurChatter material for next Chatter is due: May 1, 1997.

FROM THE PRESIDENT's DESK

I would like to thank all of you who attended our last meeting. Your cooperation in moving your cars to the south end of the parking lot helped. It was very important that we did not interfere with the holiday service upstairs. As it turned out, the choir gave us music on hold until we could start. I will from now on make sure that we do not repeat the conflict.

I'd also like to thank those of you helped Fred and me take all our "stuff" back to our cars. The church appreciated that we put the hall back to its normal (default) settings.

Please plan to attend our next meeting and ask a friend to come along.

73's

Ed Wille

Ed Wille - W9PWG
 President



Hamateur Chatter, --- 1 --- APRIL 1997

*The World's Oldest Continuously
 Active Radio Amateur Club
 Since 1917
 ARRL affiliation since 1919.*

Phone 466-HAMS or FAX 461-7730

Use our Club repeater - W9RH
 147.045* offset

CLUB OFFICERS:

President 461-5961
 Ed Wille ----- W9PWG
 1st V. Pres. ----- 529-5583
 Dave DeFebo ----- WB9BWP
 2nd V. Pres. ----- 774-2114
 Kate Kedney ----- KA9MWT
 Secretary 1 (414) 968-2724
 Jim Tromblay ----- WB9LNU
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 Ken Eggert ----- W9MOT

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 Roger Zaun ----- W9UVV
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HAMATEUR CHATTER

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 344-4694

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 Dick Schlatterer ... KA9MTY
 354-7452



MILWAUKEE AREA NETS

DAY	TIME	MHZ	ACTIVITY
Daily	6-8 AM	14.290	Wisconsin/Florida Net (SSB)
MON-FRI	8:30 AM	3.965	After Breakfast Club (SSB)
MON	8:00 PM	146.445	Emergency Net
MON	9:00 PM	146.670	ARES Net (Milwaukee-Waukesha)
MON	9:00 PM	50.160	6 Mtr. General Net
TUE	7:00 PM	442.200	General Racine N9OEZ repeater
TUE	8:00 PM	144.22	Badger Contesters (SSB)
TUE	8:00 PM	7.035	A.F.A.R. Net (CW)
WED	8:00 PM	28.365	10-10 International (Milwaukee Ch.) (SSB)
THU	9:00 PM	50.160	6 Mtr. General Interest Net
THU	9:00 PM	146.910	Computer Net
FRI	8:45 PM	28.400	W9RH 10 meter MRAC Station Net (SSB)
FRI	9:15 PM	147.045	W9RH 2 mtr. net following the 10 mtr. net
SAT	9:00 PM	146.910	Saturday Nite Fun net
SUN	8:30 AM	3.985	QCWA (Chptr. 55) (SSB)
SUN	10:00 AM	443.800	FM-38 Link to 146.88 Baraboo SWAP Net
SUN	8:00 PM	28.365	10-10 International (Milwaukee Ch.) (SSB)
SUN	8:00 PM	146.910	Information Net
SUN	9:00 PM	146.910	Swap Net

The 2 meter frequencies are -600 khz offset FM repeaters. FM38 is +5 Mhz offset, tone 114.8. The 10 meter frequencies are upper sideband (USB). If there are additions, changes, or corrections to this list, please contact: Pancho KA9OFA at 344-4694 or call 466-HAMS.

HAM Related Telephone BBS's (Computer Bulletin Board Services)

Digital Ham Shack AES ----- 358-3472
 node 1 ----- 251-1106
 node 2 ----- 251-0201

Editor's Notes

This meeting should be a specially interesting one, due to the fact that soon, we will be heading into the tornado season, locally.

We will have Skip Voros - WD9HAS talk to us about severe weather, weather spotting, and coordination of weather information using Amateur Radio Repeaters, Doppler Radar, etc. Our thanks to Kate Kedney-KA9MWT for coercing Skip to talk to us about this important phase of HAM radio.

73's *Pancho*



P.S. Here is a good excuse to come to a Club meeting and/or the Saturday morning breakfast:

To drop off and/or pick up a prescription at Walgreens while you're enjoying the meeting or breakfast! On the corner of Hwy 100 and Capitol - (the Church corner) a Walgreens is being built. A Walgreens is also being built next door to Maxim's Restaurant.

Ed-W9PWG



MRAC VEC FCC HAM RADIO EXAMS

Second Sat. of Each Month

1:00 - 3:00 pm
 Wauwatosa Savings Bank
 6560 S. 27th St.
Oak Creek, WI

Last Sat. of Each Month

9:30 A.M. - Noon
 Amateur Electronics Supply
 5700 W. Good Hope Rd.
Milwaukee, WI

You will not be permitted to take the exam without these items:

- 1) Your original license (if you have one) and a photocopy of it.
- 2) Any CSCE's you may have (and a photocopy of each).
- 3) Two forms of identification (examples: - drivers license and social security card)
- 4) \$6.25 (exam fee).

Walk-ins welcome, but pre-registration is encouraged if possible. To register in advance, send a post card on which you have printed the grade of license for which you are applying, your name, address and telephone number to:

Milwaukee Radio Amateurs' Club
 P.O. Box 25707
 Milwaukee, WI 53225
 For more information call:
 466-HAMS



REVIEW OF THE MARCH 27th MEETING

The meeting was called to order at 7:39 P.M.

Our President explained to the members that the raffle will be held at the same time as the food break to help save time.

The previous meeting minutes were read and approved as written.

The Treasurers report \$2,043.91 in liquid assets. We now have 173 paid up members as of 3/27.

Dave passed around some copies from (Radio on Line) that he copied with his computer from the internet about the future of amateur radio.

Kate has arranged for a weather program with Skip Voros - WD9HAS as speaker and plans to

invite other clubs to come.

Our May Club meeting will be out at Crites Field to the CAF to see the PV-2 bomber again.

Roger informed the membership that the elections for 3 new board directors will be at our May meeting. The election committee is looking for members who are interested in helping with their Club. Completing their terms are Pancho - KA9OFA, Jerry - WA9SFH, and Dick - KA9MTY.

Our president's final note was to remind everyone that we need to start planning for Field Day and asked if there was anyone interested in being this year's chairman for the event.

The business meeting was adjourned at 7:57 P.M.

Our food crew was Bill Jones and John Merkl.

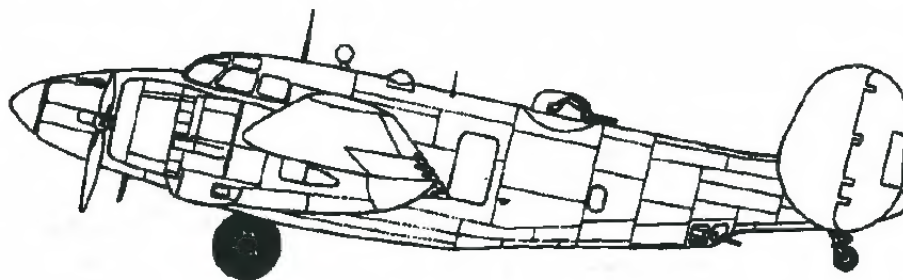
Our program was on old time (tube type) transmitters and receivers by Fred Linn crystal oscillators and grid dip meters by Ed Wille.

As usual Tom and Jacquie took care of the raffle.

Respectfully submitted,
Jim - WB9LNU
Secretary



Jim - WB9LNU
Secretary



"PV-2D Harpoon"

C. A. F. INVITATION FOR MAY MEETING

All members of MRAC are invited to the Confederate Air Force Hangar on Thursday - May 29th.

Our invitation comes from Bill Tromblay - N9UNS and the entire C.A.F. group.

All members who wish to attend, may bring a friend if they like. We will all meet in the Crites Field Parking lot at 7:00 P.M. and then go together as a group to the hangar at 7:30. The parking lot is located at the corner of

Hwy. J and Bluemound Rd. in Waukesha. No prior sign-up is required.

The Club will have a short business meeting and elect our new directors prior to our tour. Doughnuts and soda will be served.

Jim Tromblay - WB9LNU
MRAC Secretary



Springtime, Antennas, and Baseball

By Roger C. Zaun, W9UVV

It doesn't take too much mental agility to know that there might be a relationship between the above three words. I experienced this relationship recently, but with a rather special twist. Let me explain.

As some of you know, I'm a member of the Quarter Century Wireless Association. They have a Net session for the Wisconsin Chapter every Sunday morning at 8:30 A.M. During the past winter I checked into this Net a number of times. I found out that when employing my 100 watt transceiver and my ground mounted multi-band vertical antenna, it did a great job transmitting, but reception was poor, a very high noise level practically eliminated any weak signal. I couldn't hear members checking in from Rhinelander, Minocqua or Green Bay, etc. I wasn't too happy with the situation.

The QCWA members take turns in running the Net, and I was notified that my turn would be in March. If I am going to participate, something had better be done soon for a new 75 meter system. During late February and early March we were still in the grip of winter with snow on the ground and the conditions for putting up an antenna were poor. However, in the meantime I gathered the various materials to put up a 75 meter inverted V dipole,

On March 20th, by the calendar the first day of spring, we surprisingly had a rather nice day. I went out into my front yard checking for a suitable high tree to hang the center of the antenna from a branch. The antenna support had to be a tree because the roof was already full of antennas. Mounted there is a 12 meter dipole, a 15 meter inverted V, a 160 meter inverted V, an 11 element 2 meter Yagi, and a separate 10 meter Delta loop antenna. That pretty well pre-

cluded hanging anything else up there.

I selected a tall hickory tree and figured I could maybe throw a line over a high branch. I decided to use the time honored system of a weight tied to a light line, swinging it back and forth like a pendulum and letting it fly up hopefully over a branch. Well, things didn't go too well. I made a considerable number of tries, got tangled up in a lot of branches, broke the line, re-spliced the line and was getting thoroughly frustrated.

About this time, Joe, who works occasionally as a handy man for my next door neighbor walked over and said, "What the heck are you doing Roger? I see you flailing away at the tree with a rope. Is there something up there you are trying to knock down?"

"No, Joe, I haven't gone bonkers yet. I'm a Ham Radio Operator and I'm trying to put up another antenna. What you see here on the ground are two lengths of copper wire, one end of each connected to a thing that looks like an insulator with an eyelet on the top. It is called a Balun, but we won't go into that.

This line, tied to the eyelet, will then be thrown over a tree branch, and the whole rig then hauled up in the air."

"Well, gee that's no problem."

"You want to give it a try, Joe?"

"Yeah, but I don't think you have enough weight there. I'm going to get one of the sockets from my socket wrench set, and we'll tie that on."

So, he returned with a weight, and we hooked it on our light line. "Rog, where do you want it?"

"You see that big crotch up about 30 feet, Joe? Off the left hand crotch are three main branches. Try and get over the top branch."

"Oh, OK. Piece of cake."

Well, he takes a shot. Close, but he didn't make it. Joe stood back a

little further, but he's not swinging the rope, he's going to throw it overhand. He leaned way back, threw the weight, and zingo, right over the top branch went the line and weight.

"Joe, I can't believe this. I've been fooling around here for a half hour. How come?"

"Didn't I tell you I used to be the top pitcher in a local industrial hardball league. I guess my training as a ball player did the trick for you today."

"Joe, you're a life saver. Fantastic."

Well, I figured the antenna raising project is 90% complete, all I have to do is tie a heavier rope on the lead line, tie it to the Balun and haul it up. Not so. From there on out, it's another story.

The ensuing antenna effort went something like this. I wanted the antenna to resonate at 3985 KHz, the frequency of the Net, or somewhere close. I figured I'd cut it for 3900 KHz which was 120 feet for a half wave. That would give me some extra wire to play with. So, I spread out the wires, hauled it up, found a couple of more trees to tie off the outer ends at about 15 feet above around. This arrangement gave a V configuration with a spread of something more than 45 degrees at the apex.

We then went into the Radio Shack and hooked the new coax cable to the transceiver. We fired the rig up and started checking the SWR reading around 3950 KHz. Bad results! We had a SWR reading of 4.5 to 1. I realized from previous experience with inverted V's the resonant frequency would be a little lower than the calculated value for a flat top dipole. Also, the height of the apex of the antenna will have an effect on it as well as surrounding objects. So, I wasn't too excited about the SWR reading. I figured I'm going to have to do a little wire trimming.

Springtime, Antennas, and Baseball Continued

But first the actual resonant frequency (minimum SWR reading) had better be determined. So, at low transmitting power we slowly tuned lower in frequency and found the minimum SWR reading at 3840 KHz. This cannot be! Surrounding objects and trees cannot possibly have that much effect. Well, maybe so, some wire trimming is needed to raise the resonant frequency.

We went outside and let down the ends of the antenna from the trees; and for starters cut 6 inches from each wire. Checked the SWR again and found the resonant point was at 3860 KHz. Outside again, cut another 6 inches—resonant frequency now about 3885 KHz. I knew, from previous experience, on 75 meter dipoles if you cut ten inches from each end of the antenna, your resonant frequency will go up at least 50 KHz. so, I got a little drastic and went out, cut ten inches off each end, went back to the shack, checked for minimum SWR again, and it didn't quite hit 3900 KHz. The dip also was not as low as it should be.

Usually with a dipole like this, you get 1:1 or 1:2, reading at resonance. This dip was as high as 2:1. Well, if I need an operating frequency of 3985 KHz we might as well cut off another ten inches. What have we got to lose? We went through the same trimming procedure again, and we're now barely at 3910 KHz. This is screwy!

We decided to tune the transmitter a little higher. We went up to 4000 KHz and the SWR lowered just perceptibly. My transceiver will tune only out as far as 4030 KHz; so, momentarily, we went out of band, and a little lower SWR reading occurred. Hmmm! It seems almost like a double resonance reading is occurring. We stopped and decided

to do a little serious thinking about these measurements.

We have an antenna switch in the shack whereby we can select my various antennas. When they are not in use, a center "OFF" position shorts out each coax feed line. Well, just for the heck of it, I set the antenna selector switch to the multi-band vertical antenna. Then with the transceiver still directly connected to the new 75 meter inverted V, we turned the rig on and flipped the antenna switch back and forth from the vertical antenna to OFF position. Checking around 3900 - 4000 KHz we observed a big change in the SWR readings.

Suddenly the light went on, and the dawn broke, you might say. This ground mounted vertical covers all bands from 75 to 10 meters, and I had the 75 meter section tuned, for previous net operation, to approximately 3985 KHz. Obviously this vertical antenna was having a great effect on my new 75 meter dipole.

Due to a limited selection of trees to tie off the dipole antenna ends, one end passed within 15 feet of the vertical antenna at a height of about 18 feet.

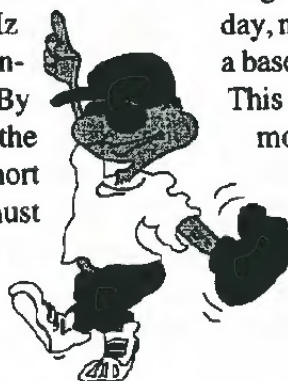
I didn't really want to take down the vertical antenna so I took a jumper wire and tried shorting out the large coil section that resonated this antenna in the 75 meter band. Under this condition we again checked the inverted V antenna for resonance and low SWR. When scanning over the 75 meter band from 3800 KHz to 4000 KHz we couldn't find any indication of resonance. By now I'm convinced the antenna length is too short and true resonance must now be somewhere above 4000 KHz. I needed a means of

generating a signal above 4000 KHz. I knew my good friend, Ed Wille, W9PWG, had a MFJ SWR Antenna Analyzer which measures SWR and antenna resistance over a continuous frequency range of 1.8 MHz through 150 MHz. I gave Ed a call on the land line and he was good enough to give the loan of the instrument. Upon arriving home, we immediately connected the MFJ Antenna Analyzer up to my troublesome 75 meter inverted V, and under the condition with the 75 meter vertical antenna coil shorted out, began new resonance and SWR measurements.

Starting about 4000 kHz, we gradually tuned the analyzer higher in frequency; at 4085 KHz a good meter dip indicating the resonant frequency occurred. This pretty well proved the proximity of the multi-band vertical antenna had a much greater than expected influence on the new dipole antenna.

From there on out it was only a matter of splicing a length of wire to each end of the dipole and with the aid of the analyzer, and several wire trimming operations, we brought the inverted V dipole into resonance at 3985 KHz and at a SWR reading of 1.2 to 1. In retrospect, having had one of these analyzers (or no multi-band vertical at my QTH for that matter would have cut down much effort and frustration.

Who said, "You can't teach an old dog new tricks". It just takes little longer. That is how, on a nice spring day, my antenna had a little help from a base ball pitcher and a good friend. This story almost sounds like a testimonial ad for MFJ Antenna Analyzers.



Roger

History Buff

MRAC from 1917 to 1980

The Milwaukee Radio Amateurs' Club was founded in January of 1917 by Loy S. Baird, A.C. Kletzsch, Jr., John B. Hitz, and Alonzo Pawling. The meetings were held at their homes.

At the same time, the World was fighting WWI and in April of 1917, the U.S. declared war against Germany. This affected 10 million men between the ages of 21 and 30. Very few potential hams were available. In June, Congress passed the Espionage Act, providing a \$10,000.00 fine and 20 years in prison for anyone who encouraged disloyalty or interfered with the draft.

Prior to the founding of MRAC, the senior radio association of Milwaukee was the Milwaukee Radio Association. This association did not survive the period during WWI and the government ban on amateur radio activities. Its post war membership was absorbed by MRAC. Among their members were Robert Miregler, C.F. Bates, L.J. Pahl and L.A. Degner. The Milwaukee Boy Scout Radio Club was also founded at this time, receiving instructions in elementary radio from a member of the faculty of the Milwaukee School of Engineering. Some of these members joined MRAC also.

In 1919 while Congress gave us the 18th amendment (Prohibition) Liquor was legally outlawed for all U.S. citizens. And shortly after the government ban on amateur radio was lifted, MRAC made a complete list of all amateurs in the city of Milwaukee, rented The Trustees' room at the Milwaukee Public Museum and in the Fall of 1919 a simple constitution was adopted and officers were elected. The officers were Loy S. Baird (9HO) - President, Clarence N. Crapo (9VD) - V.P., Rudolf Teschan - Secretary, Thomas Westion - Treasurer, Roy

Plishek - Business Manager, and the Directors were Charles Polacheck, Cornelius Prinslow, A. Kletzsch, and A. Bertram Lord.

On October 24, 1919, the initial request for affiliation was sent to the ARRL and on December 5th we became officially affiliated with the ARRL. With our certificate of affiliation came a letter from Hiram Percy Maxim, the founder of the ARRL, with the following message. "In these hectic days of trying to get going with something really good, don't overlook the matter of the value of a Radio Club. We know whereof we speak, because we have seen the dark days of going it alone, playing the (one radio hand, and we have seen brighter days when, once a week we have rubbed elbows with others who are interested in the same problems that are perplexing us.

The value of the Radio Club is more than the help it gives to the individual members by providing the opportunity to talk things over. It makes for strength of Amateur Radio generally."

As part of the ARRL system the Club the Club was expected to relay CW messages. A city Traffic Manager was required to preserve order and guide the relay work as per ARRL rules. L.A. Degner was appointed as our first City Manager. MRAC's publicity manager was M.B. Grogan.

In 1920, Loy Baird became Chairman of the Board and Clarence Crapo became President, A.B. Lord - V.P. Louis Heyman - Secretary, E. Ruppenthal, Treasurer and Business Manager. Clarence Crapo succeeded L. Degner as City Manager for the ARRL. Meetings were held in a lecture room in the old insurance building obtained through the help of MSOE.

VE's for Mar., '97

(Volunteer License Examiners)

Jerry Thompson ---- WA9SFH
Dick Schlatterer --- KA9MTY
Bob Immekus ----- W9CYI
Bill Kidd ----- NE9W
Kate Kedney ----- KA9MWT
Robert Schroeder ----- K9RW
Ed Wille ----- W9PWG

MRAC VE's Will be testing at SuperFest at AES on May 3, 1997.

History Buff, continued

The Milwaukee Radio Executive Council was formed through the efforts of the leaders of MRAC. The purpose of the Radio Executive Council was to affiliate as many of the suburban radio clubs with MRAC as possible. These suburban clubs included: The Wauwatosa Radio Club, meeting on Monday evenings at Wauwatosa H.S. The West Allis Radio Club, meeting on Friday evenings in the West Allis Public Library. And the South Side Radio Club of Milwaukee, meeting on Wednesday evenings in the South Side Branch of the Public Library.

Jim - WB9LNU

★ ★ ★ ★ ★ More Input?

We are still looking for your contributions to the Hamateur-Chatter. You can give them to me in hard copy, on 3 1/2" disk in either Apple ProDOS, MacIntosh, or IBM compatible format.

HAM CLUB ACTIVITIES

CQ Third Tuesday
11:00 am
Old Country Buffet
164th and Bluemound

Y'all come(!) to the **MRAC HAM BREAKFAST** every Saturday morning at 8:30 o'clock. Maxim's Restaurant 9143 W. Appleton Ave. (corner of 91st St. and Appleton Ave. near Timmerman Field). Prices are reasonable, the food good, and the company excellent.

First Friday Fish Fry
Serb Hall at 51st and Oklahoma Ave. Call: Warren - K9IZV on the 146.91 - offset for reservations by Noon on that FRI.

W9RH-10 & 2 METER NETS
W9RH Ten Meter Net 8:45 PM at 28.4 MHz. SSB Friday evenings at 9:15 2 meter FM repeater at 147.045 + offset. We'd like to meet you there.

CLUB MEETINGS

Menomonee Falls Amateur Club
Last Wed of the month
Doors open @ 7:00 p.m. Mtg @ 7:30 p.m.
Bank One Bldg. @
Pilgrim Rd. and Mequon Rd.
Menomonee, Falls, WI

CLUB MEETINGS continued

Milwaukee Radio Amateur's Club
Last Thursday of the month 7:30 p.m.
Redemption Lutheran Church
4057 N. Mayfair Rd.
Milwaukee, WI

Miller Valley Radio Amateur Club
Tuesday evenings at 6:30 p.m.
at 703 N. 39th St.,
just north of (and almost under)
the Wis. Ave. viaduct.
For info contact: Art - WA9AWJ
(found daily on the 146.91 repeater).

Ozaukee Radio Club
Second Wed. of each month
7:30 p.m.
Grafton Multipurpose Senior Center
Grafton, WI

South Milwaukee Amateur Radio Club
First Wednesday of each month
American Legion Post 434
9327 S. Sheppard Ave
Oak Creek, WI
Auction at March & October mtgs.

West Allis Radio Amateur Club
Meets the second Tuesday of each month
at 8:00 p.m.
At St. Peter's Episcopal Church
7929 W. Lincoln Ave.
West Allis, WI

NEWS CONTRIBUTIONS

Articles and information for the newsletter should be received by the editor no later than the first of the month of publication. If received after the first of the month, its inclusion in that month's edition cannot be guaranteed. Your cooperation is appreciated. Please mail submissions to:

HamateurChatter
Pancho Donels - KA9OFA
1958 N. 38th St.
Milwaukee, WI 53208

Thanks to our news contributors this month:

WB9LNU W9UVV W9PWG



Our People



MAY BIRTHDAYS

	Birthdate
Bernard M. Shuster	KB4QXV ...05-07
Allan R. Drobac	KB9NRS05-08
Ron E. Hagen	KB9KYI05-09
Richard F. Schoessow	WB9HSW ...05-12
Patrick P. Malloy	W9ZO05-12
Hans Schroeder	AE9G05-14

	Birthdate
John S. LeFeber	W9VAT05-16
Jeanne F. Pavak	W9OMZ05-23
Ken W. Eggert	W9MOT05-26
Charles J. Merten	W9CHD05-27
Norman Russell	KB9GQX ...05-29
Delbert C. Clark	KA9ZMK ...05/12

Oops!

Another slipup, another missed birthday. We missed Birthday of Mark R. Bye - KB9LDX, which occurred on 04/22. Sorry, Mark! A belated Happy Birthday.

I hope that I have all the records straight now.

Happy Birthday!

Hamateur Chatter --- 7--- APRIL 1997

Use our
W9RH Repeater
147.045 MHz + offset

Highlights

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Upcoming Events

* Indicates VE Testing

DMRAA HAMFEST *

SAT - APR. 26, 1997

Iwoa State Fairgrounds
Des Moines, IA
T/I on 147.34/94 rpt

CEDARBURG SWAFFEST *

SAT - MAY 3, 1997

Circle "B" Recreation Ctr.
Cedarburg, WI
T/I on 146.37/97 or 146.52
simp.

LAKESHORE HAMFEST *

SAT - MAY 10, 1997

Manitowoc Cnty. Expo
Manitowoc, WI
T/I on 146.61 simp or
147.03 + rpt

DAYTON HAM-VENTION

WED. - SUN.

MAY 15-18, 1997

PRINCETON HAMFEST & COMPUTER SHOW

SUN - JUNE 1, 1997

Bureau Cnty Fairgrounds
Princeton, IL
T/I on 146.955 - .600 PL
103.5

SWAFFEST & AUCTION *

SUN - JUNE 8, 1997

Village Park
Junction City, WI
T/I on 146.07/67 rpt

SIX MTR. CLUB OF

CHICAGO

40TH ANNUAL HAMFEST

SUN - JUNE 8, 1997

DuPage Cty. Fairgrounds
Wheaton, IL
T/I on 146.37/97 or
146.52 simp.

SMARC SWAFFEST *

JULY 12, 1997

American Legion Post 434
Oak Creek, WI
T/I on 146.52

EAU CLAIRE SWAFFEST

SAT. JUL. 12, 1997

Eau Claire Cty. Fairgrounds
Eau Claire, WI
T/I on 146.31/91 rpt



Send Fliers or info to:
Hamateur Chatter

c/o **PANCHO DONEIS, KA9OFA**

1958 N. 38th St.
Milwaukee, WI 53208
or Phone: (414) 344-4694 or 466-HAMS

Hamateur Chatter --- 8 --- APRIL 1997



Milwaukee
Radio Amateurs' Club
P.O. Box 25707
Milwaukee, WI 53225

Apr. 1997 Vol 5 #03

THIS MEETING

Thur. - Apr. 24

Board mtg. Apr. 21

Next Meeting

May 29, 1997



.P/97 J3/77
EDWARD F. WILLE W9PWG
7835 W. CALDWELL COURT
MILWAUKEE WI 53218